

Living with Uncertainty in Resource Management Science

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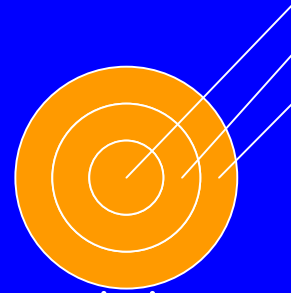
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Confidence vs. Relevance

-- % Confidence →



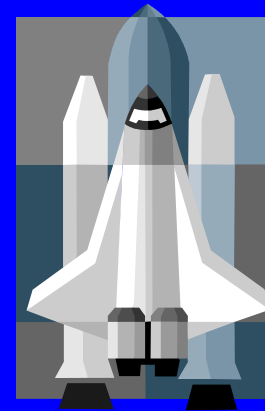
Most scientists



Target is impossible



Dumb?

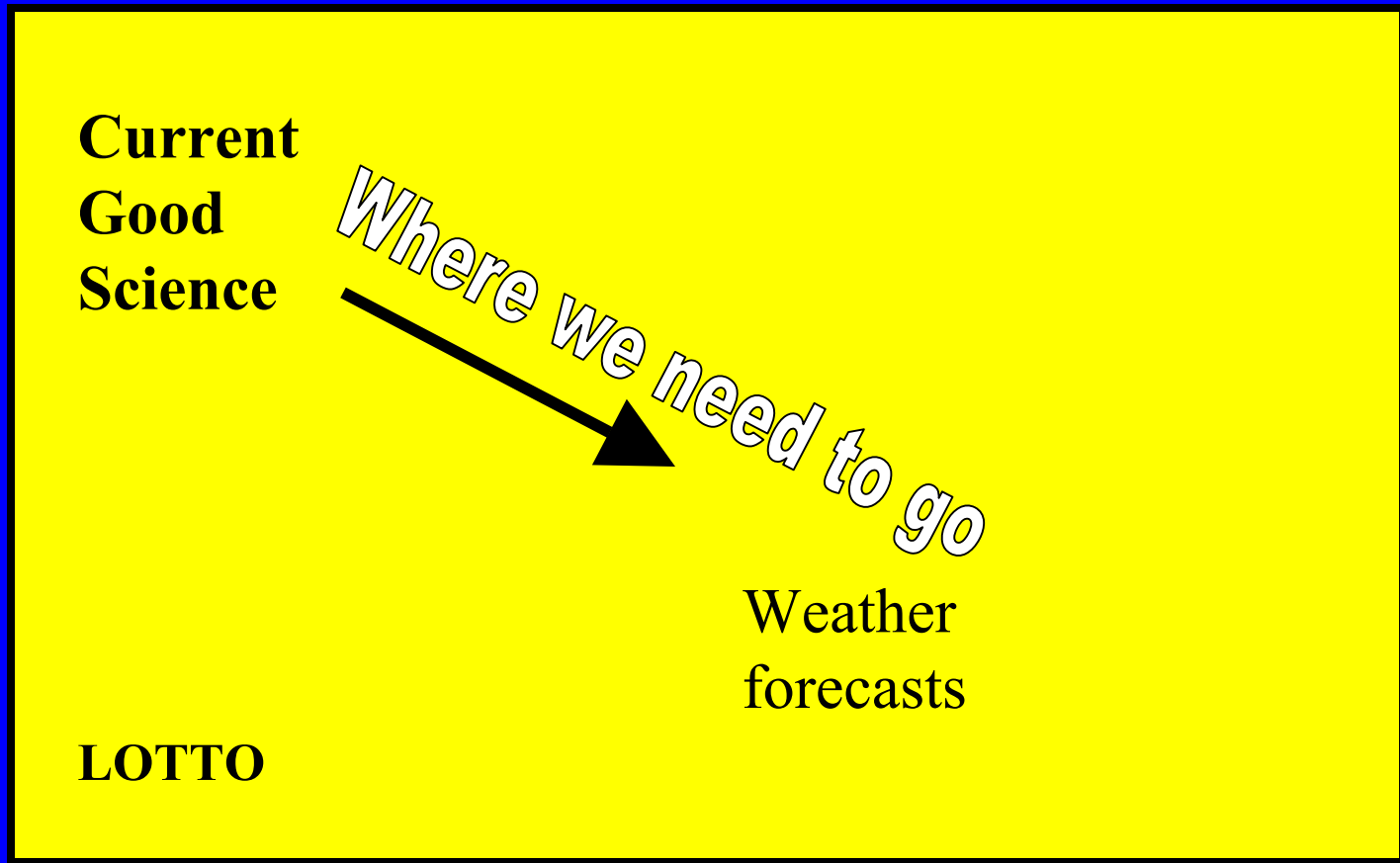


Rocket Science

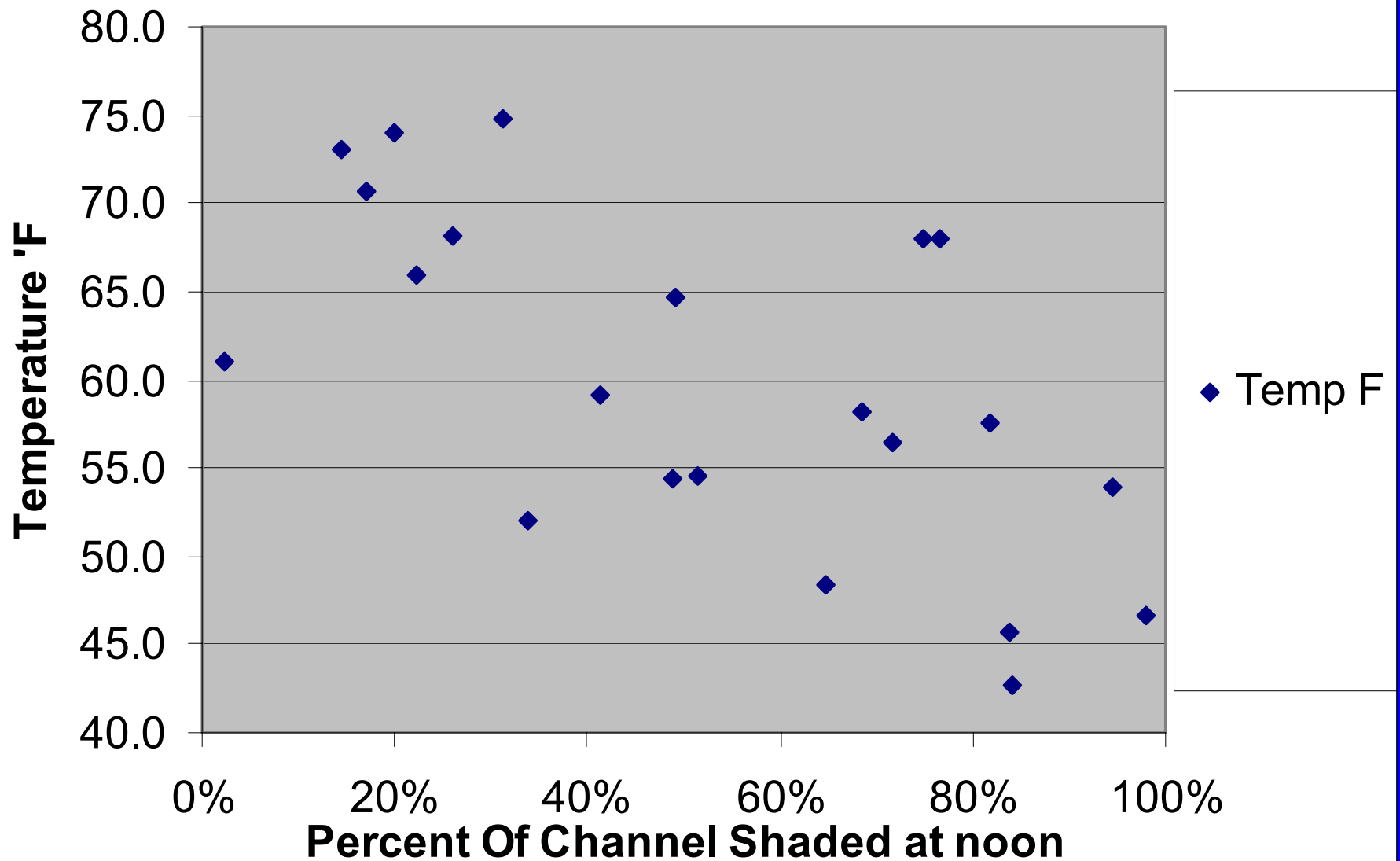
-- Relevance →

Confidence vs. Relevance

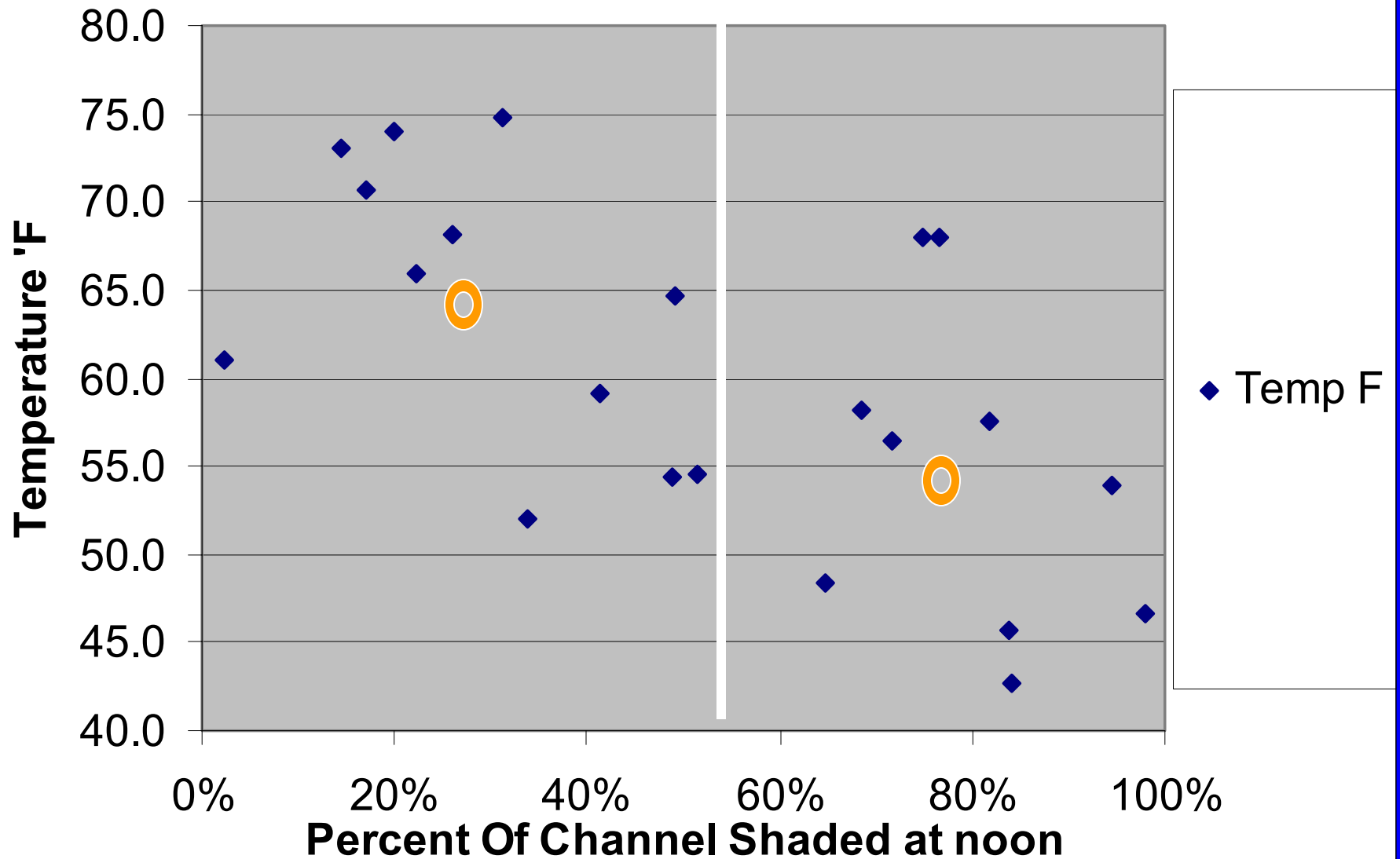
% Confidence -- >>
50% 65% 80% 90% 95% 99%



Stream Temperature vs. Shading

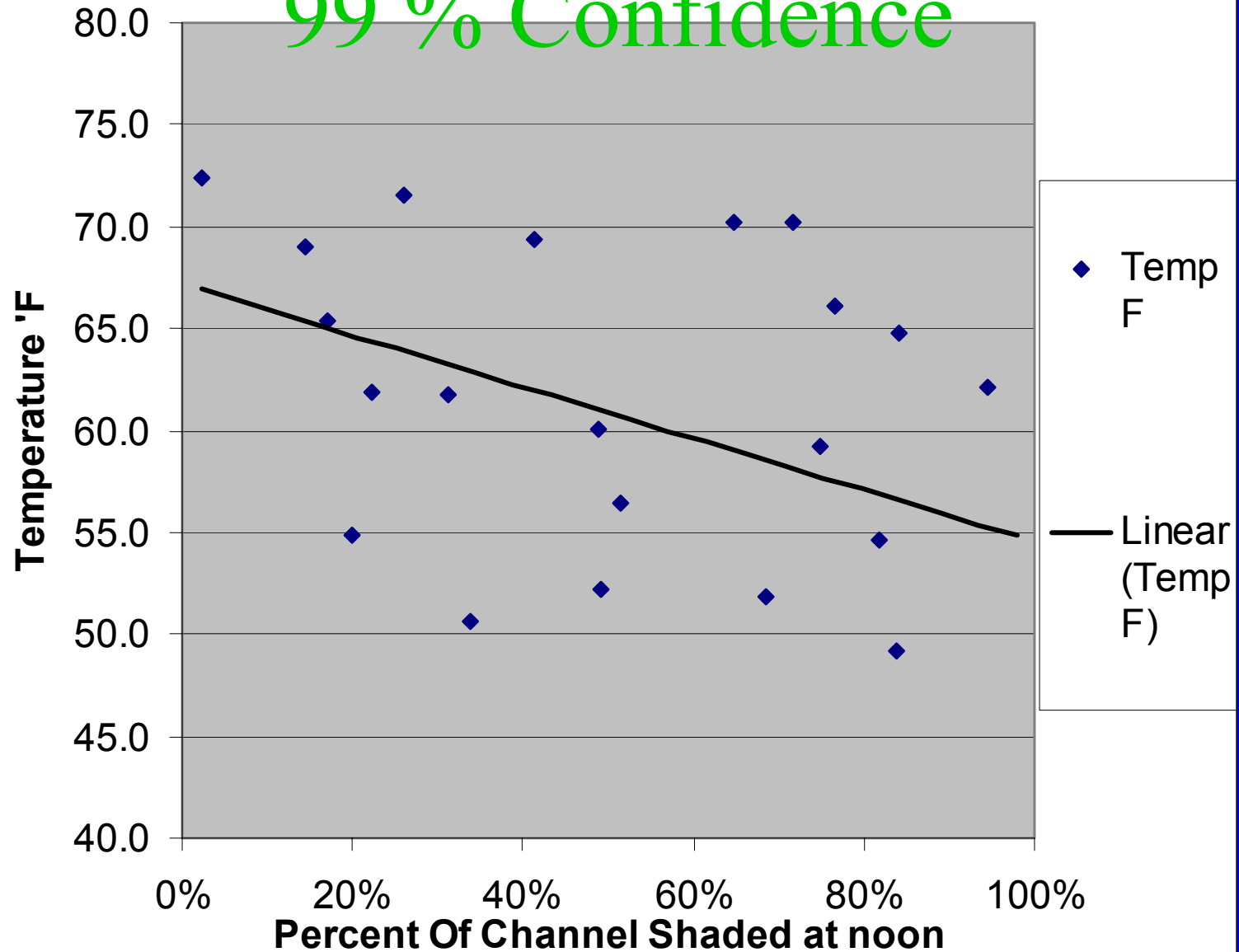


Stream Temperature vs. Shading



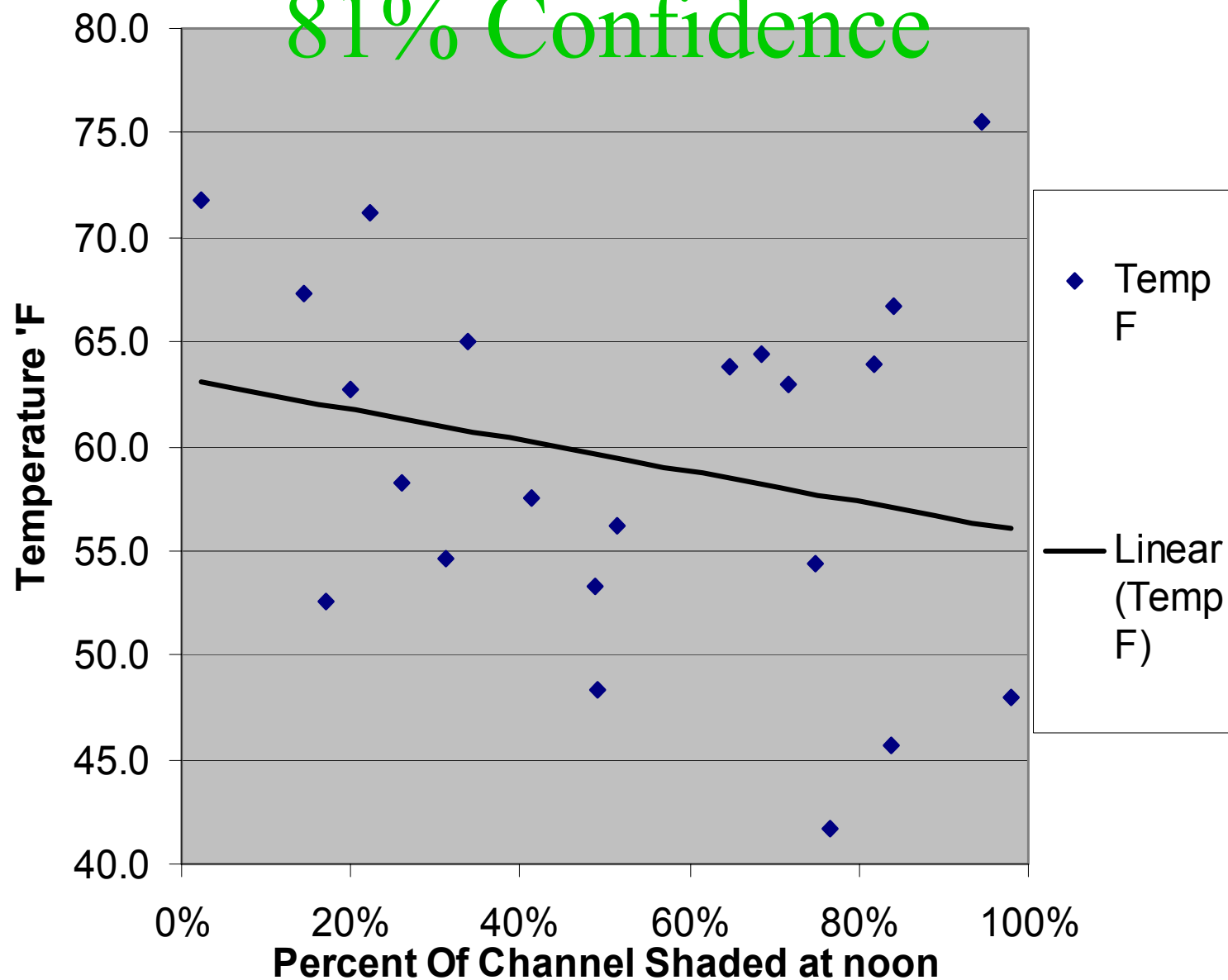
Stream Temperature vs. Shading

99 % Confidence



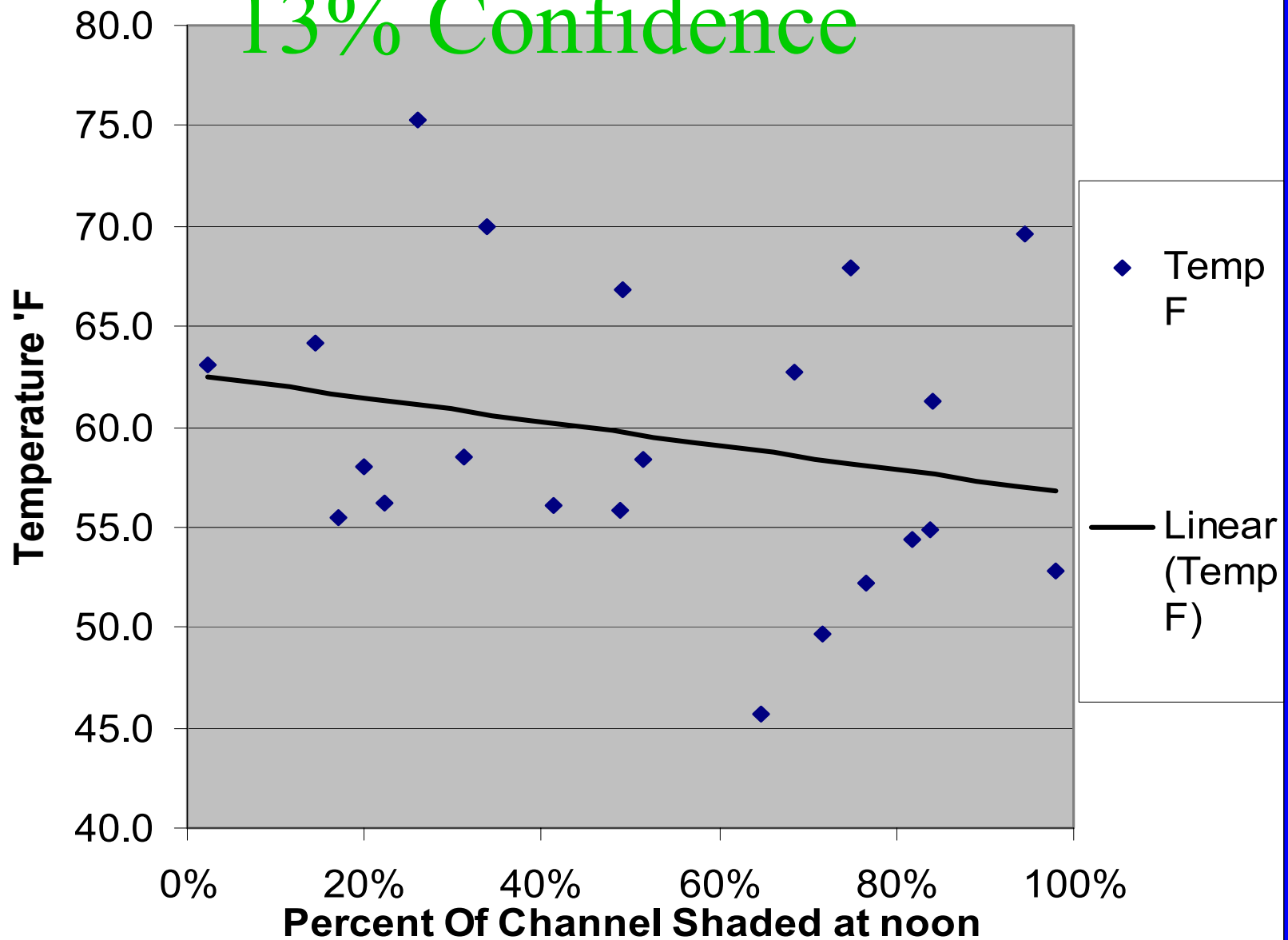
Stream Temperature vs. Shading

81% Confidence



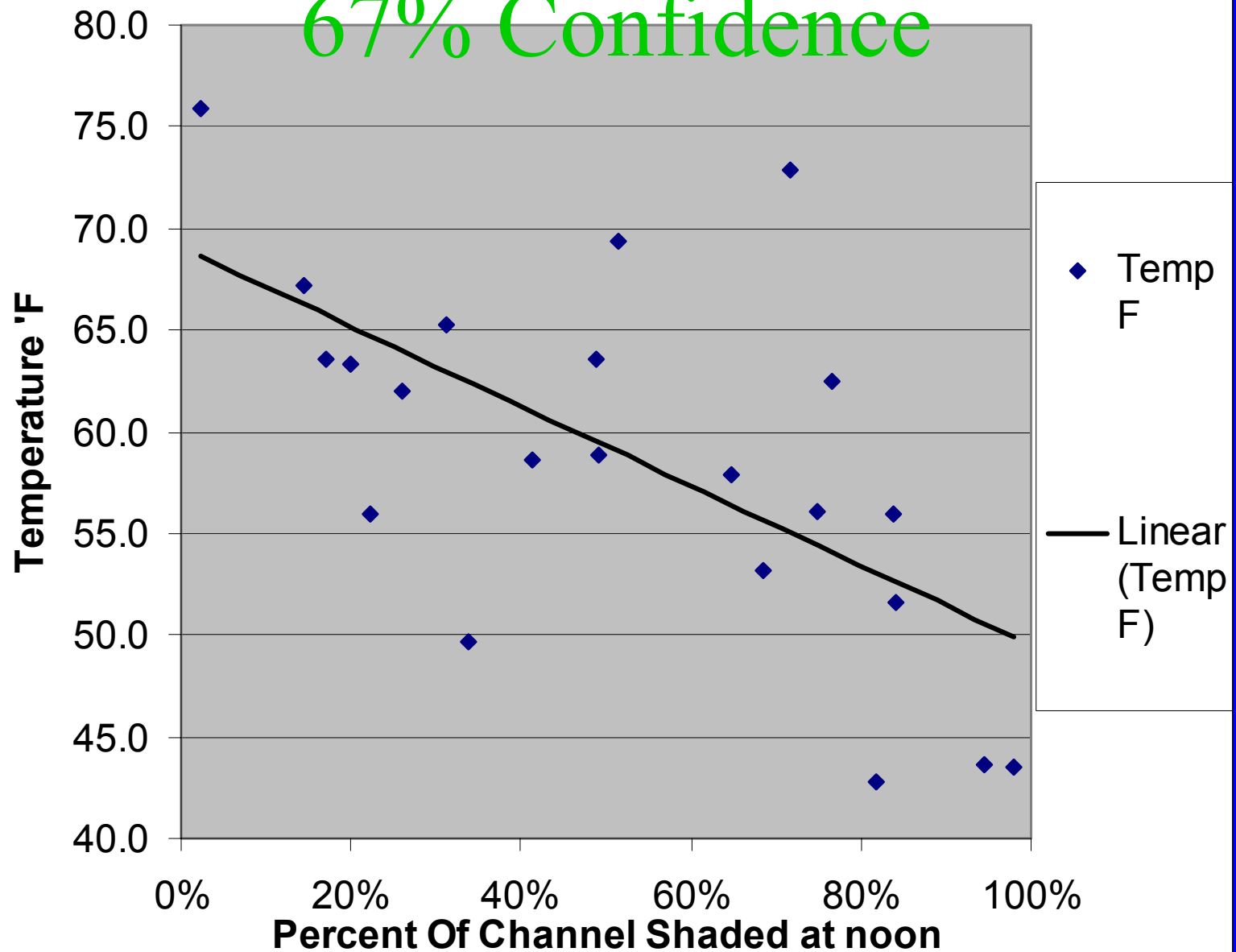
Stream Temperature vs. Shading

13% Confidence



Stream Temperature vs. Shading

67% Confidence



Science-based Management

- Statistical basis for most appropriate science.
- Confidence levels for decisions
- If not 95 or 99%, then ‘not statistically significant’ or the relationship was not substantiated—most often not reported at all.

So what happens?

- Question reformulated to be simpler to substantiate.